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EXAMINER

ZIMMERMAN, JOSHUA D

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERIC VERSCHUEREN

Appeal 2009-008224
Application 10/530,394
Technology Center 2800

Decided: November 17, 2009

Before EDWARD C. KIMLIN, ADRIENE LEPIANE HANLON, and
MARK NAGUMO, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-12 and 15-34.
Claim 1 is illustrative:

1. A method of making a heat-sensitive lithographic printing plate precursor comprising the steps of
 - (i) providing a web of a lithographic support having a hydrophilic surface;

- (ii) applying a coating comprising a phenolic resin on the hydrophilic surface of the web;
- (iii) drying the coating;
- (iv) heating the web wherein the temperature of the web is maintained above 150°C during a period of between 1 and 30 seconds; and
- (v) winding the precursor on a core or cutting the precursor into sheets.

The Examiner relies upon the following references as evidence of obviousness:

Kojima	US 5,380,612	Jan. 10, 1995
Price	US 6,007,240	Dec. 28, 1999
Kamitani	US 2002/0098288	Jul. 25, 2002
McCullough	WO 99/21715	May 5, 1999

Lawrence E. Nielson, "Mechanical Properties of Polymers and Composites," 1974, Vol. 1, pp. 94-95.

Appellant's claimed invention is directed to a method of making a heat-sensitive lithographic printing plate precursor. The method entails heating a web containing a coating of phenolic resin to a temperature above 150°C for a time of 1-30 seconds.

The appealed claims stand rejected under 35 U.S.C. § 103(a) as follows:

- (a) claims 1, 4-6, 17 and 22 over Kamitani in view of McCullough,
- (b) claims 7, 8, 10 and 23-25 over Kamitani in view of McCullough,
- (c) claims 3, 16 and 19 over Kamitani in view of McCullough and Kojima,

- (d) claim 21 over Kamitani in view of McCullough and Kojima,
- (e) claims 9 and 26-28 over Kamitani in view of McCullough and Price,
- (f) claims 2, 12, 30 and 32 over Kamitani in view of McCullough,
- (g) claim 34 over Kamitani in view of McCullough,
- (h) claims 11, 15, 18, 29 and 31 over Kamitani in view of McCullough and Kojima, and
- (i) claims 20 and 33 over Kamitani in view of McCullough and Kojima.

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections for essentially those reasons expressed in the Answer.

There is apparently no dispute that Kamitani, like Appellant, exemplifies a method of making a heat-sensitive lithographic printing plate precursor comprising drying a coating of a phenolic resin on a lithographic support and then heating the coating to a temperature of 153°C for 5 seconds (*See* TABLE 1). The referenced table indicates that under such conditions of temperature/time the resulting plate had no faults with respect to withstanding repeated printings, but was of unsatisfactory quality regarding developability and overall quality. Accordingly, based on this disclosure, Appellant's principal argument is that Kamitani teaches away from performing the claimed step of heating the web above 150°C during a period of between 1 and 30 seconds. Consequently, although Kamitani teaches that

a printing plate of poor quality results from drying under such conditions, the fact remains that Kamitani describes a method of making a heat-sensitive lithographic printing plate precursor that falls within the scope of claim 1 on appeal. Hence, we agree with the Examiner's statement that Kamitani anticipates claim 1 within the meaning of 35 U.S.C. § 102 and, as has often been held, anticipation is the epitome of obviousness.

Furthermore, Kamitani provides a clear teaching that the drying conditions for the printing plate precursor are result-effective variables which affect the quality of the resulting printing plate. In particular, Kamitani discloses that "it is known that quality is affected by the heating conditions (temperature and time) during curing in which the support and the photosensitive coated layer are heated in order to accelerate the hardening of the photosensitive coated layer after evaporating and drying have been carried out" ([0006]). The reference also discloses that "it is important to carry out heating accurately to a target temperature which is suitable for the characteristics of the photosensitive coated layer, and to maintain this target temperature over a predetermined period of time" ([0018]). In addition, the reference teaches that "a condition of heating by the second heating means is controlled in accordance with the type of photosensitive coated layer formed on the support, such that the temperature of the photosensitive coated layer... is a predetermined temperature which is set in accordance with the type of the photosensitive coated layer" ([0023]). Kamitani further explains that "the extent to which the temperature of the photosensitive coated layer immediately after heating by the second heating means... affects the quality of the lithographic printing plate greatly depends on the type of the photosensitive coated layer" ([0024]).

Manifestly, based on the Kamitani disclosure, it is quite clear that the particular composition of the photosensitive coating, and the time and temperature of drying the coating, are result-effective variables that determine the quality of the ultimate printing plate produced. It is by now axiomatic that it is a matter of obviousness for one of ordinary skill in the art to resort to nothing more than routine experimentation to determine the optimum values of result-effective variables. *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980). Furthermore, it is well settled that where patentability is predicated upon a change in a condition of a prior art process, such as a change in temperature, time, pressure, etc., the burden is on the Applicant to establish with objective evidence that the change is critical, i.e., it leads to a new, unexpected result. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). In the present case, the record is devoid of credible evidence proffered by Appellant that the drying conditions of time and temperature recited in the appealed claims produce an unexpected result. As for Kamitani teaching away from the claimed conditions, the Examiner has properly pointed out that the values exemplified by Kamitani are for a very specific composition. We observe that the range of compositions taught by Kamitani is considerably broader ([0051]). Similarly, the appealed claims are not so limited but embrace a broad class of compositions comprising a phenolic resin.

As for the claimed cooling step after the heating step, Kamitani also establishes that such cooling was known in the art to facilitate the provision of an overcoat layer (*see* [0040 and 0041]). The particulars of the cooling step would also be a matter of routine optimization for one of ordinary skill in the art.

We find it unnecessary to discuss McCullough in any length since the reference simply underscores what Kamitani teaches, namely, that time and temperature are result-effective variables affecting the quality of the printing plate.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

kmm

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